MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT
EVALUATION REPORT

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (408) 647-9411

Dated: June 4, 1997
and revised July 21, 1997

APPLICATION RECEIVED FROM:

Pacific Gas and Electric Company
Moss Landing Power Plant
P.O. Box 27
Moss Landing, CA 95039-0027

PLANT SITE LOCATION:

Highway 1 and Dolan Road
Moss Landing, CA 95039

APPLICATION PROCESSED BY:

Mike Sewell, Air Quality Engineer

Nature of Business: Electric Power Generation

SIC Code: 4911 - Electric Power Generation

RESPONSIBLE OFFICIAL:

Name: James K Randolph
Title: Vice President of Power Generation
Phone: (415) 973-7431

FACILITY CONTACT PERSON:

Name: Steve Abbott
Title: Environmental Coordinator
Phone: (408) 633-6649

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FACILITY DESCRIPTION

Pacific Gas and Electric's Moss Landing Power Plant is an electric generating facility located in Moss Landing, California. The facility has a net power production capacity of approximately 1,500 megawatts from two operating power generating units. The two operating units, Units 6 and 7 (Boilers 6-1 and 7-1) began operation in 1967 and 1968, respectively. Each unit is rated at 750 megawatts and were originally designed to rely on an external source of steam for startup. A natural gas fired package boiler was installed in 1995 to provide this startup steam energy, replacing an older steam system utilizing the facility's smaller electrical generating boilers which are no longer operational.

Historically, a total of ten boilers were operational at the facility. On December 26, 1995 Pacific Gas and Electric submitted Acid Rain (Part 72) "Retired Unit Exemption" applications for Boilers 1 - 8 at the facility. A "Retired Units Exemption" was granted by the District on April 12, 1996 and was retroactive to January 1, 1996 for Boilers 1 - 8. This "Retired Units Exemption" is valid until January 1, 2000.

At the time of requesting the "Retired Units Exemption" for Boilers 1 - 8, Pacific Gas and Electric also submitted an application to the District to bank emissions from the shutdown of these boilers. Final action was taken by the District on this banking application on March 18, 1997, the District Permits to Operate for Boilers 1 - 8 were cancelled and the Emission Reduction Credit Certificates were issued to Pacific Gas and Electric. The ramification of this action is that any future application to operate these units must consider this equipment as a new source subject to a New Source Review (NSR) evaluation including Best Available Control Equipment (BACT) and full offsets.

In addition to the boilers, Pacific Gas and Electric operates ancillary equipment at the facility. This ancillary equipment will be included on the Title V permit for the facility.

EQUIPMENT DESCRIPTION

POWER GENERATION FACILITY CONSISTING OF:

TWO 750 MW UNITS - BOILERS NUMBER 6-1 & 7-1 EACH CONSISTING OF:

Steam Generator, Babcock and Wilcox Company, Once-Through, Radiant, Reheat, Pressurized Furnace Type, 6500 MMBtu/hr, Natural Gas-Fired With Fuel Oil Standby.

Combustion Control And Burner Management Provided By Westinghouse Integrated WDPF Distributed Control System.

Steam Production Rate: 5,100,000 Lb/hr (At 1005° F And 3830 Psia)

Forced Draft Fans:

Four (4) Forced Draft Fans, Each Rated At 400,000 CFM At 40.8 Inches H_2O and 80° F.

Air Preheaters:

Two (2) Ljungstrom Regenerative Air Preheaters, Each With 334,800 Ft^2 Of Heating Surface And Equipped With The Following Fallout Type Particulate (FTP) Control Measures:

Stainless Steel Intermediate And Cold-End Baskets, With Sootblower, Retractable Type, Electrically Driven, Using Outlet Steam At 600 Psig & 738° F. Sootblower Configured For Reverse Air Sootblowing (Towards The Boiler),

Air Preheater Drain System And Stack Wash Collection System.

Burners And Overfire Air Ports:

Sixteen (16) Burner Cells Total, Eight (8) Front Wall, Eight (8) Back Wall.

Each Burner Cell Equipped With Three (3) Babcock & Wilcox S-Type Low NO_x Burners, And Two (2) Ignitors.

Each S-Burner Equipped With Total Air Sliding Damper, Adjustable Spin Vanes, Core Air Sliding Disk, Oil Atomizer, And Gas Spud Assembly.

Eight (8) Dual Zone Overfire Air Ports, Four (4) Front Wall, Four (4) Back Wall.

Fuel Additive System:

18,000 Gallon (30 Day Supply) Main Additive Storage Tank Serving Both Units 6-1 & 7-1, Associated Pumps, Piping, & Hardware.

Sootblowing Equipment Serving Boiler:

Forty-Four (44) Sootblowers Total, Electrically Driven, Long Retracting Lance Type Using Outlet Steam @ 600 Psig & 738° F (FTP Control Requirement).

Gas Recirculation Fans:

Two (2) Flue Gas Recirculation Fans, American Standard, Centrifugal Type, Each Rated At 252,000 CFM @ 12.5 Inches H_2O Static Pressure, Each Driven By Electric Motor 1500 Hp, 4000 V, 1200 Rpm.

Continuous Emissions Monitoring System:

Continuous Emissions Monitor, Extractive Type, Measuring NO, CO, & CO_2 Emissions.

Exhaust Stack:

500 Ft High Above Grade, 66 Ft O.D. At Base, 20 Ft O.D. At Top.

NATURAL GAS CONDENSATE TANK

One 700 Gallon Aboveground Storage Tank To Store Natural Gas Condensate From The Fuel Gas Metering System.

FUEL OIL STORAGE TANKS

One 250,000 Bbl Nominal Capacity And Eight (8) 500,000 Bbl Nominal Capacity Fuel Oil Storage Tanks.

STARTUP PACKAGE BOILER

One Nebraska Boiler, Self Contained Packaged Forced Draft Steam Boiler, With A Coen Low NO_x Burner Rated At 76.9 MMBtu/hr, Natural Gas Fired.

GASOLINE STORAGE TANK

One 4,000 Gallon Underground Gasoline Storage Tank With Coaxial Vapor Recovery And Submerged Fill Equipment.

ABRASIVE BLASTING EQUIPMENT

Abrasive Blasting Booth With Stationary Blast Equipment, Compressed Air Provided By Electric Compressor, And Portable Abrasive Blasting Equipment With Compressed Air Provided By Electric Or Diesel Fired Compressor.

PAINT SPRAY FACILITY

Indoor Paint Spray Area Located In The Staging Area Of the Sand Blasting Facility.

EMERGENCY GENERATOR

Cummins/Onan Generator Set, 1505 BHp, 1,000 Kw Output.

LABORATORY FUME HOODS

Fume Hoods, Located In Chemical Laboratory.

APPLICABLE FEDERAL REQUIREMENTS

Rule 207 - Review of New or Modified Sources
The major equipment (Boiler 6-1 and 7-1, storage tanks, etc.) at this facility predate this rule, and have not gone through NSR; therefore no federally enforceable conditions are imposed by this rule.

Local permitting of the ancillary equipment installed since the adoption of this rule has not triggered the NSR process, Therefore, no federally enforceable conditions will be imposed on the ancillary equipment by this rule.

Rule 213 - Continuous Emissions Monitoring
This rule is applicable to Boilers 6-1 and 7-1 at the facility. Appropriate conditions will be included on the permit to ensure compliance with this rule.

Rule 218 - Title V: Federal Operating Permits
This is the implementing regulation by which the District issues the federal Operating Permits. All requirements imposed by this rule will be included on the Title V permit.

Rule 219 - Title IV: Acid Deposition Control
This is the implementing regulation by which the District issues Acid Rain Permits and incorporates the requirements of 40 CFR Parts 72 and 75. All requirements imposed by this rule will be included on the Title IV permit which will be incorporated into the Title V permit.

Rule 308 - Title V: Federal Operating Permit Fees
This is the District's fee rule for Title V. Appropriate conditions will be included on the Title V permit to ensure compliance with the fee provisions contained in this rule.

Rule 400 - Visible Emissions
This rule is applicable to the emissions from the facility. Continuous opacity monitors are operated on Boilers 6-1 and 7-1 which will ensure compliance with the limits contained in this rule.

Appropriate conditions will be included on the permit to ensure compliance with the requirement of this rule.

Rule 403 - Particulate Matter
The 0.15 grains per dry cubic foot emission standard is applicable to this facility and will be included on the permit. Based upon the requirements of Rule 403, the volumetric flow rate of 1,244,000 SDCFM for Boilers 6-1 and 7-1 would establish an emission limit of 1599.4 lbs PM_{10}/hr [(1,244,000 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 1599.4 lbs PM_{10}/hr] and the startup package boiler would have an emission limit of 15.4 lbs PM_{10}/hr [(12,015 SDCFM)* (0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 15.4 lbs PM_{10}/hr].

Based upon AP-42 emissions data (Table 1.3-2, dated 1/95), the particulate matter emissions from the Boilers 6-1 and 7-1 based upon a worst case scenario of firing on fuel oil would be 331.5 lbs PM_{10}/hr [(42,420 gals/hr)*((9.19*0.5 + 3.22 lbs/10^3 gals)) = 331.5 lbs PM_{10}/hr]. The particulate matter emissions from the startup Package Boiler, based upon AP-42 factors (Table 1.4-1, dated 10/92), would be 1.0 lb PM_{10}/hr [(76.9 MMBtu/hr)*(1 ft^3/1050 Btu)*(13.7 lbs/MMcf Nat Gas) = 1.0 lb PM_{10}/hr].

These AP-42 calculations show that this equipment would be unable to exceed the grain loading allowed by the rule. Therefore, no testing will be required in the permit for the grain loading standard from this rule as compliance is assured from the above calculations.

Rule 404 - Sulfur Compounds and Nitrogen Oxides

Compliance with the 0.2% by volume (2000 ppmv) limit for SO_2 at Boilers 6-1 and 7-1 is assumed due to the worst case calculated emissions (firing on fuel oil) of 3450.9 lbs/hr [From AP-42 Table 1.3-2, dated 1/95 - (42,420 gals/hr)*((162.7*0.5 lbs/10^3 gals)) = 3450.9 lbs SO_2/hr] for each of the boilers. The SO_2 concentration at this calculated emission level would be 273.4 ppmv for the boilers [(3450.9 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((1,244,000 SDCFM)*(60 M/Hr)) = 273.4 ppmv]. This value is well below the 2000 ppmv SO_2 allowed in this rule.

The Startup Package Boiler is assumed to be in compliance with 2000 ppmv SO_2 limit as it is only fired on natural gas.

The Emergency Generator is assumed to be in compliance based upon a maximum SO_2 emission rate of 3.1 lbs/hr [From AP-42 Table 3.3-2, dated 1/95 - (1505 Bhp)*(2.05E-3 lbs/Hp-hr) = 3.1 lbs SO_2/hr] for the engine. The SO_2 concentration at this calculated emission level would be 64.9 ppmv for the Emergency Generator [(3.1 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((3,600 SDCFM)*(60 M/Hr)) = 84.9 ppmv]. This value is well below the 2,000 ppmv SO_2 allowed in this rule.

Boilers 6-1 and 7-1 are not subject to the 140 lb/hr NO_x limit because this equipment predates the rule and has not been "expanded". The Startup Package Boiler and the Emergency Generator are assumed to be in compliance with the 140 lb/hr NO_x limit based upon the following emission calculations. The NO_x emissions from the Startup Package Boiler, based upon AP-42 factors (Table 1.4-1, dated 10/92), would be 10.3 lbs NO_x/hr [(76.9 MMBtu/hr)*(1 ft^3/1050 Btu)*(140 lbs/MMft^3 Nat Gas) = 10.3 lbs NO_x/hr], while the NO_x emissions from the Emergency Generator would be based upon AP-42 factors (Table 3.3-2, dated 1/95), would be 46.7 lbs NO_x/hr [(1505 BHp)(0.031 lb/hp-hr) = 46.7 lbs NO_x/hr]. These calculated values are well below the 140 lb/hr limit contained in the rule.

Boilers 6-1 and 7-1 are subject to the 225 ppm NO_x limit. Compliance has been shown based upon historical source tests at the facility which have shown maximum readings of 196 ppm on fuel oil and 140 ppm on natural gas. In addition, compliance has been assured due to the installation and operation of CEMs with the data showing compliance at all times with the 225 ppm limit.

The Startup Package Boiler is limited to a 350 ppm NO_x limit due to being fired on a gaseous fuel. Compliance with this standard is assumed based upon the following concentration calculation. The NO_2 concentration at the calculated emission level of 10.3 lbs/hr (from above) would be 117.5 ppmv for the Startup Package Boiler [(10.3 lbs NO_2/hr)*((MM lbmoles air)/(46 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((12,040 SDCFM)*(60 M/Hr)) = 117.5 ppmv]. This value is well below the 350 ppmv NO_2 allowed in this rule.

Therefore, no new source testing will be included on the permit for these Rule 404 limits. The CEM system will continue to monitor NO_x, while SO_2 will be monitored and calculated based upon Part 72 and 75 requirements.

Rule 412 - Sulfur Content of Fuels

This rule which requires that the sulfur content of any gaseous fuel be less than 50 grains per 100 cubic feet and that the sulfur content of any liquid or solid fuel be less than 0.5% by weight is applicable to this facility. Historically, the facility has been in compliance with the requirements of this rule based upon the combustion of natural gas as the primary fuel source which assures compliance with the 50 grain limit. The other fuel source for power generation is Residual Oil Number 6 with sulfur content below 0.5%.

Diesel fuel is utilized in the emergency generator and the some of the abrasive blasting compressors. The diesel fuel is assumed to be in compliance with the 0.5% sulfur content due to state law requirements on fuel sulfur content. Therefore, no testing will be required on the diesel fuel to show compliance with this rule requirement.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Rule 416 - Organic Solvents

This rule has specific emission limits and recordkeeping requirements for photochemically reactive and non-photochemically reactive solvents. This rule applies to the paint spray operation at this facility. Historically, daily material usage records show that the facility has been operating below the 40 pound per day limit for photochemically reactive solvents and the 3,000 pound per day limit for non-photochemically reactive solvents. Compliance with the 8 pound per hour limit for photochemically reactive solvents and the 450 pound per hour limit for non-photochemically reactive solvents is assumed based upon the limited material usage at the facility.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Rule 417 - Storage of Organic Liquids

This rule requires vapor loss control devices on organic storage tanks if the organic liquid stored has a true vapor pressure of 1.5 psi at actual storage conditions. The facility is in compliance with this rule because they presently store Residual Oil Number 6 which has a vapor pressure of 0.00019 psia at 100° F, well below the 1.5 psi trigger for the rule requirements.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule if organic materials are stored that have a true vapor pressure of 1.5 psi or greater.

Rule 418 - Transfer of Gasoline into Stationary Storage Containers

This rule requires that the gasoline storage tank have a submerged fill pipe and that Phase I Vapor recovery be utilized when filling the tank. The rule also requires specific recordkeeping regarding the quantity of fuel delivered to the facility. The facility is in compliance with the requirements of this rule.

Appropriate conditions will be included on the permit to ensure compliance with the requirements of this rule.

Rule 426 - Applications of Nonarchitectural Coatings
This rule is applicable to all applications of Nonarchitectural coatings and limits the VOC content of these coatings. The facility is in compliance with the requirements of this rule.

An appropriate condition will be included on the permit to ensure compliance with the requirements of this rule.

Rule 431 - Emissions From Utility Power Boilers
This rule has numerous provisions which require reductions in NO_x emissions from Boilers 6-1 and 7-1 by specific dates contained in the Rule.

NO_x limits are presently set at 0.3 lbs/MMBtu heat input, and 90 ppm when operating at loads greater than 400 MW and 450 lbs/hr at loads equal to or below 400 MW. The CO limit is set at 400 ppm based upon a 60-consecutive minute average and 1000 ppm based upon a one hour clock-hour average. The initial compliance testing after the installation of the low-NO_x burners (these burners were installed to meet the rule requirements) has shown the unit to be in compliance with both all rule requirements. In addition, compliance has been, and will continue to be assured due to the required operation of CEMs with the data showing compliance at all times with the requirements of this rule.

Appropriate conditions will be included on the permit to ensure compliance with the existing and future provisions of this rule.

Rule 433 - Organic Solvent Cleaning
This rule contains specific operational and recordkeeping requirements for solvent cleaning and degreasing operations.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Rule 1002 - Transfer of Gasoline into Vehicle Fuel Tanks
This rule contains specific requirements for the installation and operation of ARB Certified Vapor Recover (phase II) systems on gasoline dispensing facilities.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions
This facility is subject to the requirements of this part because they are subject to 40 CFR Part 60, Subpart Dc.

The District asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, recordkeeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8, and 60.13.

40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
The startup package boiler at the facility is subject to the requirements of this part based upon the

definition of a "steam generating unit". Although the boiler is subject to this part, no SO_x and PM requirements are imposed due to the fact that the unit is fired exclusively on natural gas.

40 CFR Part 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978
The Fuel Oil Storage Tanks at the facility are not subject to the requirements of this part based upon the fact that they store fuel oil number 6 which by definition is not a petroleum liquid.

40 CFR Part 60, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984
The Fuel Oil Storage Tanks at the facility are not subject to the requirements of this part based upon the date of installation of these tanks. These tanks were installed in 1973 - 1974. Since their installation date no reconstruction or modification has taken place.

40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction , Reconstruction, or Modification Commenced after July 23, 1984
The Fuel Oil Storage Tanks at the facility are not subject to the requirements of this part based upon the date of installation of these tanks. These tanks were installed in 1973 - 1974. Since their installation date no reconstruction or modification has taken place.

40 CFR Part 61, Subpart M - National Emission Standard for Asbestos
This facility on an as needed basis is subject to Section 61.145 through 61.147 - standards for the demolition and renovation of asbestos. Historically, the facility has been in compliance with the requirements of these standards. An appropriate condition will be included on the permit to ensure compliance with these requirement.

40 CFR Part 82 - Protection of Stratospheric Ozone
This facility is in compliance with the requirements of this part
. An appropriate condition will be included on the permit to ensure compliance with these requirements.

THE FOLLOWING CONDITIONS WILL BE INCLUDED ON THE TITLE V PERMIT:

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

1. Starting on January 1, 2000, Pacific Gas and Electric Company shall hold Sulfur Dioxide Allowances in the compliance subaccounts for Boilers 6-1 and 7-1 not less than the total annual emissions of sulfur dioxide for the previous calendar year from each boiler. [District Rule 219]

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating

more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]

3. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream. [District Rule 403]

4. Sulfur compounds calculated as sulfur dioxide (SO_2) shall not exceed 0.2 percent by volume in any exhaust stream. [District Rule 404]

5. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), from the Startup Package Boiler or the Emergency Generator shall not exceed 140 lbs/hr. [District Rule 404]

6. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), from Boiler 6-1 or 7-1 shall not exceed 225 ppmv, calculated at 3 percent O_2, dry. [District Rule 404]

7. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), from the Startup Package Boiler shall not exceed 350 ppmv, calculated at 3 percent O_2, dry. [District Rule 404]

8. The sulfur content on any fuel oil used at the facility shall not exceed 0.5 percent by weight. [District Rule 412]

9. No more than 40 pounds per day, nor more than 8 pounds per hour of photochemically reactive solvent containing materials, as defined in District Rule 416, shall be discharged from the Paint Spray Facility. [District Rule 416]

10. No more than 3,000 pounds per day, nor more than 450 pounds per hour of non-photochemically reactive solvent containing materials, as defined in District Rule 416, shall be discharged from the Paint Spray Facility. [District Rule 416]

11. Pacific Gas and Electric Company shall store no organic material in the Fuel Oil Storage Tanks with a vapor pressure equal to or greater than 1.5 psi until such time that the tanks are equipped with vapor control devices as required in District Rule 417. [District Rule 417]

12. Pacific Gas and Electric Company shall operate the storage tank at gasoline dispensing facility with a permanent submerged fill pipe. [District Rule 418]

13. Pacific Gas and Electric Company shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]

14. Until such time that Boilers 6-1 or 7-1 operate under the limits contained in conditions 21 or 22, oil and mixtures of oil and natural gas shall not be used as a fuel in Boilers 6-1 or 7-1, except in the event of Emergency Conditions or a Force Majeure Natural Gas Curtailment as defined in Rule 431. [District Rule 431]

15. NO_x emissions from Boilers 6-1 and 7-1 shall not exceed 90 ppm during operation on natural gas and at loads in excess of 400 gross MW. This limit is based on a one (1) hour average at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

16. NO_x emissions from Boiler 6-1 shall not exceed 450 lbs/hr during operation on natural gas and at loads at or below 400 gross MW. This limit is based on a (1) hour average. [District Rule 431]

17. NO_x emissions from Boiler 7-1 shall not exceed 450 lbs/hr during operation on natural gas and at loads at or below 400 gross MW. This limit is based on a (1) hour average. [District Rule 431]

18. NO_x emissions from all boilers providing steam for power generation at the facility shall not exceed 9.64 tons per day when averaged over the period of May 1 through October 31 annually. [District Rule 431]

19. NO_x emissions from all boilers providing steam for power generation at the facility shall not exceed 0.30 pounds per million BTU heat input. [District Rule 431]

20. No later than December 31, 1998, Pacific Gas and Electric Company shall submit an Implementation Plan for compliance with the provisions of Subsection 3.7.3 of Rule 431. [District Rule 431]

21. Effective December 31, 2000, NO_x emissions from one of the 750 MW Units shall not exceed 10 ppm during operation on natural gas and 25 ppm during operation on fuel oil. These limits are based on a one (1) hour average at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

22. Effective December 31, 2001, NO_x emissions from Boiler 6-1 and 7-1 shall not exceed 10 ppm during operation on natural gas and 25 ppm during operation on fuel oil. These limits are based on a one (1) hour average at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

23. NH_3 from any emissions control device installed and operated pursuant to the requirements of Rule 431 shall not exceed 10 ppm, based upon a 60-consecutive minute average at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

24. CO emissions from Boilers 6-1 and 7-1 shall not exceed 400 ppm during steady-state compliance tests based upon a 60-consecutive minute average and shall not exceed 1000 ppm during normal operations based upon a one (1) hour clock-hour average at three (3) percent

oxygen (O_2) on a dry basis. [District Rule 431]

25. Pacific Gas and Electric Company shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]

26. Pacific Gas and Electric Company shall comply with the requirements of Sections 61.145 through 61.147 of the National Emission Standard for Asbestos for all demolition and renovation projects. [40 CFR Part 61, Subpart M]

27. Pacific Gas and Electric Company shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

28. The equipment installed for the continuous monitoring of CO_2 and NO_x shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. [District Rule 219]

29. The equipment for the continuous monitoring of CO shall be maintained and operated in accordance with 40 CFR Part 60 Appendix F and with the ability to calculate CO emission concentrations corrected to three (3) percent oxygen on a dry basis. [District Rule 431]

30. The continuous emissions monitoring systems shall continuously record the measured gaseous concentrations, and shall calculate and continuously monitor and record the NO_x and CO concentrations corrected to three (3) percent oxygen (O_2) on a dry basis, and the NO_x and CO mass emission rates in pounds per hour, and pounds per day. [District Rule 431]

31. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NO_x and 40 CFR Part 60, Appendix F for CO which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity and leak testing, recordkeeping and reporting implementation, and relative accuracy testing. [District Rule 219]

32. No testing is specified for the generic (Rule 400) opacity requirement from condition number 2. The equipment is assumed to be in compliance with the opacity requirement due to historical operations (including the non-federally enforceable requirement for the operation of continuous opacity monitors on Boilers 6-1 and 7-1) and local compliance inspections without opacity violations. If testing is conducted for condition number 2, Pacific Gas and Electric Company should conduct testing in accordance with the methodology contained in EPA Method 9 or equivalent method and the averaging/aggregating period contained in District Rule 400. [District Rule 218]

33. No testing is specified for the (Rule 403) particulate matter emission standard from condition

number 3. The fuel burning equipment is assumed to be in compliance with the particulate matter emission standard based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number 3, Pacific Gas and Electric Company should conduct testing in accordance with the methodology contained in EPA Method 5 or equivalent method. [District Rule 218]

34. No testing is specified for the (Rule 404) sulfur concentration limit in condition number 4. The fuel burning equipment is assumed to be in compliance with this sulfur concentration limit based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number 4, Pacific Gas and Electric Company should conduct testing in accordance with the methodology contained in EPA Method 6 or equivalent method. [District Rule 218]

35. No testing is specified for the (Rule 404) NO_x (oxides of nitrogen) limit in conditions number 5, 6, and 7. The fuel burning equipment is assumed to be in compliance with these NO_x limits based upon the engineering calculations contained in the evaluation report. If testing is conducted for conditions number 5,6, and 7, Pacific Gas and Electric Company should conduct testing in accordance with the methodology contained in EPA Method 7E or equivalent method. [District Rule 218]

36. No testing is specified for the (Rule 431) NO_x limits contained in conditions 15, 16, 17, and 18. Continuing compliance with these limits will be assured by the continuous emission monitoring (CEM) system. [District Rule 218]

37. No testing is specified for the (Rule 431) CO limits contained in condition 23. Continuing compliance with these limits will be assured by the continuous emission monitoring (CEM) system. [District Rule 218]

38. Testing of all fuel oil delivered to the facility shall be conducted prior to or upon receipt of the fuel oil. Pacific Gas and Electric Company shall conduct testing in accordance with ASTM D1552-83 or ASTM D1552-83 or equivalent method to verify compliance with condition number 8. Pacific Gas and Electric Company shall furnish the District written results of the test prior to firing the fuel oil, but in no case later than thirty (30) days of completion. [District Rule 218]

39. Testing of all fuel oil delivered to the facility for storage in the tank farm shall be conducted prior to receipt of fuel oil. Pacific Gas and Electric Company shall conduct testing in accordance with ASTM D323-90 or equivalent method to verify that vapor control devices as specified in condition number 11 are not required. Pacific Gas and Electric Company shall furnish the District written results of the test prior to the storage of the fuel oil in the tank farm, but in no case later than thirty (30) days of completion. [District Rule 218]

RECORD KEEPING REQUIREMENTS

40. Pacific Gas and Electric Company shall monitor SO_2 emissions in accordance with 40 CFR Part

72 and 75. [District Rule 219]

41. Pacific Gas and Electric Company shall maintain a daily log which records the amount and type of solvent containing material consumed in the paint spray facility to verify compliance with conditions 9 and 10. [District Rule 416]

42. As applicable Pacific Gas and Electric Company shall maintain the following general records of required monitoring information [District Rule 218]:

A) the date and time of sampling or measurements;
B) the date(s) analyses were performed;
C) the company or entity that performed the analyses;
D) the analytical techniques or methods used;
E) the results of such analyses;
F) the operating conditions existing at the time of sampling or measurement; and
G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.

43. Pacific Gas and Electric Company shall maintain records on the occurrence and duration of any startup, shutdown, or malfunction in the operation of the CEM. [District Rule 213]

44. Pacific Gas and Electric Company shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. [District Rule 218]

REPORTING REQUIREMENTS

45. Pacific Gas and Electric Company shall submit quarterly reports on the continuous emissions monitoring systems to the District, in a District approved format, within 45 days from the end of the quarter and these shall include [District Rules 213 & 218] :

A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and

B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and

C) time and date of each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of system repairs and adjustments; and

D) a negative declaration specifying when no excess emissions occurred; and

E) a summary of actual monthly emissions from the CEM for all equipment which operated during the quarter.

46. Pacific Gas and Electric Company shall submit quarterly Electronic Data Reports (EDR) to EPA for Boilers 6-1 and 7-1. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in §75.64. [40 CFR Part 75]

47. Pacific Gas and Electric Company shall submit semiannual monitoring reports to the District, in a District approved format, no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [District Rule 218]

These monitoring reports shall include at a minimum:

A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and

B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and

C) all information pertaining to any monitoring as required by this permit; and

D) a negative declaration specifying when no excess emissions occurred.

48. Pacific Gas and Electric Company shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year [District Rule 218].

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

A) identification of each term or condition of the permit that is the basis of the certification; and

B) the compliance status; and

C) whether compliance was continuous or intermittent; and

D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

GENERAL CONDITIONS

49. Pacific Gas and Electric Company shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean

Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]

50. In an enforcement action, the fact that Pacific Gas and Electric Company would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]

51. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by Pacific Gas and Electric Company for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]

52. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]

53. Pacific Gas and Electric Company shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, Pacific Gas and Electric Company shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]

54. For applicable requirements that will become effective during the permit term, Pacific Gas and Electric Company shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]

55. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Pacific Gas and Electric Company shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]

56. Pacific Gas and Electric Company shall report any violation of any requirement contained in this permit to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]

57. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]

58. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, Pacific Gas and Electric Company shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]

59. Pacific Gas and Electric Company shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]

60. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for Pacific Gas and Electric Company shall submit to the District relevant evidence which demonstrates [District Rule 218]:

    A) an emergency occurred; and

    B) that Pacific Gas and Electric Company can identify the cause(s) of the emergency; and

    C) that the facility was being properly operated at the time of the emergency; and

    D) that all steps were taken to minimize the emissions resulting from the emergency; and

    E) within two working days of the emergency event, Pacific Gas and Electric Company provided the District with a description of the emergency and any mitigating or corrective actions taken.

61. Upon presentation of credentials, Pacific Gas and Electric Company shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:

    A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;

    B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;

    C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,

    D) to sample emissions from the source.

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